CLAIMS

I claim:

1. A tilt-steered rolling device, consisting of an optional application part, a platform including extensions, and at least three wheels, two of said wheels being arranged side by side as a wheel pair, the wheels of the at least one wheel pair each being rotatably affixed at a separate wheel holder, the two wheel holders being interconnected via two cross-guides using at least four pivot links forming a trapezium-like or a parallelogram-like link chain, said tilt-steered rolling device comprising the said two cross-guides each being linked in a swivelling manner with the extensions of the platform in such a way that the first cross-guide swivels having a defined first swivel axis and the second cross-guide swivels having a defined second swivel axis, where the said first swivel axis and the said second swivel axis are oriented in parallel, and wherein the direction of the set of said first and second swivel axes make an angle α (alpha) to the common and parallel direction of the pivot axes of the at least four links of the said trapezium- or parallelogram-like link chain.

2. A device as defined in claim 1, wherein each axle of the two wheels of the wheel pair is attached only to one side of the respective wheel holder.

3. A device as defined in claim 1, wherein the pivot axes of the first cross-guide are separated by a distance which is equal to the distance between the pivot axes of the second cross-guide.

4. A device as defined in claim 3, wherein the distances as described in claim 3 are both equal to the track width of the two wheels of the wheel pair.

5. A device as defined in claim 1, wherein the second cross-guide is linked to one of the extensions of the platform using a universal joint.

6. A device as defined in claim 1, wherein the first cross-guide is linked to the extensions of the platform using two universal joints.

7. A device as defined in claim 6, wherein the middle parallel line between the two pivot axes of the first cross-guide has an intersection point K with the swivel axis of said first cross-guide.

8. A device as defined in claim 7, wherein the intersection point K is located vertically above the axes of the wheels of the wheel pair.

9. A device as defined in claim 8, wherein the swivel axis which is defined by the centers of the two universal joints of the first cross-guide lies in the plane which extends along the central longitudinal axis of the platform and which is also oriented perpendicular to the platform.

10. A device as defined in claim 1, wherein a flexing means is comprised which forces the wheel pair to return from the tilt or which maintains it in a preferred neutral position.

11. A device as defined in claim 1, wherein a tilt-steering wheel pair essentially comprising the wheels of the wheel pair, the wheel holders and the two cross-guides is mounted at one end of the device and a single wheel is rotatably affixed at the other end of the device.

12. A device as defined in claim 1, wherein the device has tilt-steering wheel pairs at both ends.

13. A device as defined in claim 1, wherein an extension supporting a tilt-steering wheel pair is fixed flexibly to the platform at one point, to permit small movements of the wheel pair essentially vertically to the platform, and to allow inclusion of a shock absorbing device.